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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,465	12/03/2001	Thomas Eckel	Mo-6623/LeA 34,860	2780

157 7590 04/20/2005

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EXAMINER	
BUTTNER, DAVID J	

ART UNIT	PAPER NUMBER
1712	

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/007,465	ECKEL ET AL.	
	Examiner	Art Unit	
	David Buttner	1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/7/05*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3,4,6-11,13,16 and 19-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3,4,6-11,13,16 and 19-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Applicant is advised that should claim 16 be found allowable, claim 19 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). The claims require the same redox initiator system. Note that claim 21 required the initiator system to be a redox system.

Claims 3,4,6-11,13,16 and 19-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Eckel '404 in view of Ishii '141 or Ueda '428.

Eckel '404 produces an emulsion ABS of high graft yield (col 14 line 45) utilizing hydroperoxide and ascorbic acid (col 14 line 13,18). This results in a blend of SAN grafted to rubber and minor amounts of free SAN (resulting in a large Z ratio).. The mixture is then blended with PC (#2,11-13). The PC is based on bisphenol A and another bisphenol (col 13 line 48). Eckel (col 13 line 16) suggests flame retardants but does not name any species.

Bisphenol A based oligophoshates are well known flame retardants for PC compositions (see abstract and tables 1-6 of Ueda;examples 1,5,6 of Ishii). It would have been obvious to add any phosphate flame retardant to Eckel's composition for the expected result. Presumably the impact strength requirement is met by the proposed composition because the same materials in the same amounts are used. Also note Ishii (col 6 line 22-30) and Ueda (examples vs. comparisons) show the desirability of bisphenol A based oligophosphates over other phosphates.

Claims 3,4,6-11,13,16 and 19-22 rejected under 35 U.S.C. 102(a,b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over DE19914139.

Eckel '301 is relied on as a translation of DE19914139.

Eckel exemplifies (#2-6) blends of PC, 10.6g of ABS, 9.3g of SAN, bisphenol A based oligophosphate and PTFE. The ABS is produced by polymerizing 40 parts styrene and acrylonitrile on 60 parts of rubber using a redox initiator system. Eckel does not report the amount of styrene and acrylonitrile that actually grafts to the rubber. However, it is known that this grafting technique inherently produces a high grafting yield (see col 4 line 36-45 of Wittmann). Assuming at least a 85% yield, the ABS used in Eckel's examples would consist of 6.36g of polybutadiene, 3.6g of SAN attached to the rubber and 0.64g of unattached SAN. This would result in a Z ratio of at least (6.36 + 3.6)/(0.64 + 9.3) =1.002 . Also note Eckel claims component C) (ie SAN) need not be present. This would result in an even larger Z ratio.

Claims 3,4,6-11,13,16 and 19 -22 rejected under 35 U.S.C. 103(a) as being unpatentable over DE19914139 Patent in view of Witmann '285.

Eckel '301 is relied on as a translation of DE19914139.

Eckel exemplifies (#2-6) blends of PC, ABS, SAN, bisphenol A based oligophosphate and PTFE. The ABS is produced by polymerizing 40 parts styrene and acrylonitrile on 60 parts of rubber using a redox initiator system. The polymerization (col 7 line 18) is carried out according to Eckel US4937285. Witmann '285 teaches that this grafting technique should produce a high grafting yield (eg 89% col 13 line 9).

Assuming a 89% yield, the ABS used Eckel's examples would consist of 6.36g of polybutadiene, 3.77g of SAN attached to the rubber and 0.47g of unattached SAN. This would result in a Z ratio of (6.36 + 3.77)/(0.47 + 9.3) = 1.04. It would have been obvious to ensure Eckel's graft has a high yield in accordance with Witmann's teachings.

Applicant's arguments filed 3/7/05 have been fully considered but they are not persuasive.

Applicant argues that the declaration of 3/7/05 shows the superiority of bisphenol based oligophosphates over other phosphates.

This is not convincing because the newly applied rejections exemplify the use of such phosphates and clearly teach advantages for doing so.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Buttner whose telephone number is 571-272-1084. The examiner can normally be reached on wekdays from 10 to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DAVID J. BUTTNER
PRIMARY EXAMINER

DButtner
4/14/05